

WHAT IS CLAIMED IS:

1 1. A system for synchronizing configuration information in a plurality of
2 data processing devices, comprising:
3 a node controller operably;
4 a plurality of interface agents operably connected to node controller;
5 a token ring connecting said node controller and said plurality of interface agents;
6 wherein transactions from said interface agents are directed to said node
7 controller and said node controller transmits information to each agent
8 using said token ring.

1 2. The system of claim 1, wherein said agents comprise a plurality of
2 configuration registers and said information transmitted on said token ring is used by said
3 agents to update said configuration registers.

1 3. The system of claim 2, wherein each of said agents further comprises a
2 CSR register..

1 4. The system of claim 2, wherein said interface agents operate in accordance
2 with the hypertransport protocol.

1 5. The system of claim 4, wherein each of said agents comprise a HT
2 configuration space register and a HT configuration space shadow register.

1 6. The system of claim 4, wherein said transaction comprises an input/output
2 transaction.

1 7. The system of claim 4, wherein said transaction comprises a control
2 command.

1 8. The system of claim 4, wherein said transaction comprises a write to a
2 memory addresses.

1 9. The system of claim 4, wherein said transaction comprises a read from a
2 memory addresses.

1 10. The system of claim 4, wherein the information in the HT configuration
2 space shadow register of an agent is updated by a snoop on said token ring executed by
3 said agent.

1 11. A system for synchronizing configuration information in a plurality of
2 data processing devices using a common system interconnect bus, comprising:
3 a node controller operably connected to said system interconnect bus;
4 a plurality of interface agents operably connected to node controller;
5 a token ring connecting said node controller and said plurality of interface agents;
6 wherein transactions from said interface agents are directed to said node
7 controller and said node controller:
8 transfers said transactions to said system interconnect bus;
9 detects said transactions; and
10 transmits information to said agents using said token ring.

1 12. The system of claim 11, wherein said node controller comprises a
2 configuration block and said transactions are detected by said configuration block.

1 13. The system of claim 12, wherein said token ring is connected to said
2 configuration block of said node controller.

1 14. The system of claim 13, wherein said agents comprise a plurality of
2 configuration registers and said information transmitted on said token ring is used by said
3 agents to update said configuration registers.

1 15. The system of claim 14, wherein each of said agents further comprises a
2 CSR register..

1 16. The system of claim 14, wherein said interface agents operate in
2 accordance with the hypertransport protocol.

1 17. The system of claim 16, wherein each of said agents comprise a HT
2 configuration space register and a HT configuration space shadow register.

1 18. The system of claim 14, wherein said transaction comprises an
2 input/output transaction.

1 19. The system of claim 14, wherein said transaction comprises a control
2 command.

1 20. The system of claim 14, wherein said transaction comprises a write to a
2 memory addresses.

1 21. The system of claim 14, wherein said transaction comprises a read from a
2 memory addresses.

1 22. The system of claim 14, wherein the information in the HT configuration
2 space shadow register of an agent is updated by a snoop on said token ring executed by
3 said agent.

1 23. A system for synchronizing configuration information in a plurality of
2 data processing devices using a common system interconnect bus, comprising:
3 a processor operably connected to said interconnect bus;
4 a node controller operably connected to said system interconnect bus;
5 a plurality of interface agents operably connected to node controller;
6 a token ring connecting said node controller and said plurality of interface agents;
7 wherein transactions from said processor are directed to said node controller and
8 said node controller:
9 detects said transactions; and
10 transmits information to said agents using said token ring.
11

1 24. The system of claim 23, wherein said node controller comprises a
2 configuration block and said transactions are detected by said configuration block.

1 25. The system of claim 24, wherein said token ring is connected to said
2 configuration block of said node controller.

1 26. The system of claim 23, wherein said agents comprise a plurality of
2 configuration registers and said information transmitted on said token ring is used by said
3 agents to update said configuration registers.

1 27. The system of claim 26, wherein each of said agents further comprises a
2 CSR register..

1 28. The system of claim 27, wherein said interface agents operate in
2 accordance with the hypertransport protocol.

1 29. The system of claim 28, wherein each of said agents comprise a HT
2 configuration space register and a HT configuration space shadow register.

1 30. The system of claim 29, wherein said transaction comprises an
2 input/output transaction.

1 31. The system of claim 29, wherein said transaction comprises a control
2 command.

1 32. The system of claim 29, wherein said transaction comprises a write to a
2 memory addresses.

1 33. The system of claim 29, wherein said transaction comprises a read from a
2 memory addresses.

1 34. The system of claim 29, wherein the information in the HT configuration
2 space shadow register of an agent is updated by a snoop on said token ring executed by
3 said agent.

1 9. A method for synchronizing configuration information in a plurality of
2 data processing devices using a common system interconnect bus, comprising:
3 receiving a transaction in a port of an interface agent, said interface agent
4 comprising:
5 a configuration space register; and
6 a configuration space shadow register;
7 transferring said transaction to a node controller, said node controller comprising
8 a configuration block;
9 transferring said transaction from said node controller to a system interconnect
10 bus;
11 detecting said transaction on said system interconnect bus using said
12 configuration block of said node controller and transferring said
13 transaction to a token ring having a plurality of agents connected thereto;
14 and
15 transmitting said transaction on said token ring, wherein the information in the
16 configuration registers and the configuration space shadow registers of
17 said agents is updated.

18

1 10. The method of claim 9, wherein said interface agents operate in
2 accordance with the hypertransport protocol.

1 11. The method of claim 9, wherein said configuration space register
2 comprises a HT configuration space register and said configuration space shadow register
3 comprises a HT configuration space shadow register.

1 12. The method of claim 11, wherein said transaction comprises an
2 input/output transaction.

1 13. The method of claim 11, wherein said transactions comprises a control
2 command.

1 14. The method of claim 11, wherein said transactions comprises a write to a
2 memory addressee.

1 15. The method of claim 11, wherein said transaction comprises a read from a
2 memory addresses.

1 16. The method of claim 11, wherein the information in a HT configuration
2 space shadow register of an agent is updated by a snoop on said token ring initiated by
3 said agent.